

Lessons 1.7 Simplifying Exponents

Algebra 1

Evaluate the expression without using a calculator.

1. $(-2)^4$
2. -2^4
3. 5^2
4. -5^2
5. 9^0
6. $\left(\frac{3}{4}\right)^2$

Simplify the expression, leaving each answer in exponential form.

7. $4^3 \cdot 4^5$
8. $8^2 (8^7)$
9. $5^4 \cdot 5^5 \cdot 5^6$
10. $7^{12} \div 7^7$
11. $15^{34} \div 15^{31}$
12. $(12^4)^5$
13. $(28^7)^6$

Simplify the expression so that there are no negative exponents.

14. 4^{-2}
15. $(-2)^{-3}$
16. $\frac{1}{5^{-3}}$
17. $(3^2)^{-2}$

Use a calculator to evaluate. Do not round answers.

18. 1.2^4
19. $(-0.4)^3$
20. 8.4^5